

DOCKET NO.: GTIS-0010



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Qing-Qing Qui, et al.

Application No.: 10/721,028

Filing Date: November 24, 2003

For: BIOACTIVE, RESORBABLE SCAFFOLDS FOR TISSUE ENGINEERING

Confirmation No.: Not Yet Assigned

Group Art Unit: Not Yet Assigned

Examiner: Not Yet Assigned.

DATE OF DEPOSIT: February 20, 2004

I HEREBY CERTIFY THAT THIS PAPER IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL, POSTAGE PREPAID, ON THE DATE INDICATED ABOVE AND IS ADDRESSED TO THE UNITED STATES PATENT AND TRADEMARK OFFICE, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450.

TYPED NAME: Elizabeth A. McLoud

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 CFR § 1.56 and in accordance with 37 CFR §§ 1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 CFR § 1.56(b).

- ☒ In accordance with § 1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of the above identified application as set forth in § 1.491, before the mailing date

of a first Office Action on the merits of the above-identified application, or before the mailing date of a first Office Action after the filing of request for continued examination under § 1.114, no additional fee is required.

- ☐ In accordance with § 1.129(a), this Information Disclosure Statement is being filed in connection with ☐ the first or ☐ second After Final Submission, therefore:
- ☐ Certification in Accordance with § 1.97(e) is attached; or
- ☐ The fee of \$180.00 as set forth in § 1.17(p) is attached.
- ☐ In accordance with § 1.97(c), this Information Disclosure Statement is being filed after the period set forth in § 1.97(b) above but before the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311, or before an action that otherwise closes prosecution in the application, therefore:
- ☐ Certification in Accordance with § 1.97(e) is attached;
- or
- ☐ The fee of \$180.00 as set forth in § 1.17(p) is attached.
- ☐ In accordance with § 1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under § 1.113 or a Notice of Allowance under § 1.311 but before, or simultaneously with, the payment of the Issue Fee, therefore included are: Certification in Accordance with § 1.97(e); and the submission fee of \$180.00 as set forth in § 1.17(p).
- ☒ Copies of each of the references listed on the attached Form PTO-1449 are enclosed herewith.

- ☐ Copies of references listed on the attached Form PTO-1449 are enclosed herewith
- ☒ Copies of references listed on the attached Form PTO 1449 are not required to be submitted pursuant to the June 30, 2003 recent revisions to 37 CFR § 1.98(a)(2)(i).

## EXCEPT THAT:

- ☐ In view of the voluminous nature of references [list as appropriate], and the likelihood that these references are available to the Examiner, copies are not enclosed herewith.
- ☐ In accordance with § 1.98(d), copies of the following references listed on the attached Form PTO-1449 are not enclosed herewith because they were previously cited by or submitted to the U.S. Patent and Trademark Office in patent application(s) for which a claim for priority under 35 U.S.C. § 120 have been made in the instant application:
- ☐ Copies of references [list as appropriate] listed on the attached Form PTO-1449 were previously cited by or submitted to the Patent and Trademark Office in prior Application No. \_\_\_\_\_, filed \_\_\_\_\_.

Please charge any deficiency or credit any overpayment to Deposit Account No. 23-3050. This form is submitted in duplicate.

- ☐ The relevance of those listed references which are not in the English language is as follows:
- ☒ There are no listed references which are not in the English language.

Date: 2/20/04

*Karen M. Whitney*

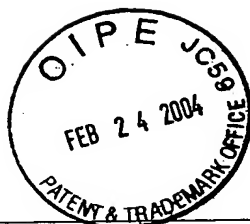
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Sheet 1 of 3

<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. GTIS-0010	Application No. 10/721,028
		Applicant Qing-Qing Qui, et al.	
		Filing Date November 24, 2003	Group Not Yet Assigned
		Confirmation No. Not Yet Assigned	
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	1	Alberts, et al., "Fibroblasts and their transformations: the connective-tissue cell family," <i>Molecular Biology of the Cell</i> , 2 <sup>nd</sup> Ed, 1989, 986-989 (abstract only, 1 page)	
	2	Attmanspacher, W., et al., "Experiences with arthroscopic therapy of chondral and osteochondral defects of the knee joint with OATS (Osteochondral Autograft Transfer System)," <i>Zentralbl Chir</i> , 2000, 125(6), 494-499	
	3	Buckwalter, J.A., et al., "Articular cartilage, Part I: Tissue design and chondrocyte-matrix interactions," <i>J. of Bone and Joint Surgery</i> , April 1997, 79-A(4), 600-611	
	4	Buckwalter, J.A., et al., "Articular cartilage, Part II: Degeneration and osteoarthritis, repair, regeneration, and transplantation," <i>J. of Bone and Joint Surgery</i> , April 1997, 79-A(4), 600-611	
	5	Ducheyne, P., et al., "Isostatically compacted metal fiber porous coatings for bone ingrowth," <i>Powder Metallurgy Int.</i> , 1979, 11, 115-119	
	6	Hangody, L., et al., "Mosaicplasty for the treatment of articular defects of the knee and ankle," <i>Clin. Orthop.</i> , 2001, S391, S328-S336	
	7	Jackson, D.W., et al., "Chondrocyte transplantation," <i>Arthroscopy: The J. of Arthroscopic and Related Surgery</i> , December 1996, 12(6), 732-738	
	8	Kulyk, W.M., et al., "Staurosporine, a protein kinase inhibitor, stimulates cartilage differentiation by embryonic facial mesenchyme," <i>J. Craniofacial Genet Dev. Biol.</i> , 1992, 12(12), 90-97	
	9	Marcolongo, M., et al., "Bioactive glass fiber/polymeric composites bond to bone tissue," <i>J. Biomed. Mater Res.</i> , January 1998, 39(1), 161-170	
	10	Marcolongo, M., et al., "Surface reaction layer formation in vitro on a bioactive glass fiber/polymeric composit," <i>J. Biomed. Mater Res.</i> , December 5, 1997, 37(3), 440-448	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	



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**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

11	Mizuno, S., et al., "Three-dimensional composition of demineralized bone powder and collagen for in vitro analysis of chondroinduction of human dermal fibroblasts," <i>Biomaterials</i> , 1996, 17(18), 1819-1825
12	Mizuno, S., et al., "Chondroinduction of human dermal fibroblasts by demineralized bone in three-dimensional culture," <i>Experimental Cell Research</i> , 1996, 227, 89-97
13	Nicoll, S.B., et al., "Modulation of proteoglycan and collagen profiles in human dermal fibroblasts by high density micromass culture and treatment with lactic acid suggests change to a chondrogenic phenotype," <i>Conn. Tess. Res.</i> , 2001, 42, 59-69
14	Nicoll, S.B., et al., "Induction of a chondrocyte-like phenotype in human dermal fibroblasts: application to cartilage tissue engineering," <i>Soc. For Biomaterials</i> , April 22-26, 1998, page 236
15	Potter, M.D., et al., "Textiles Fiber to fiber," <i>McGraw-Hill Book Co., New York</i> , 1976, Chapter 5 "Weaving", 60-86
16	Rajpurohit, R., et al., "Adaption of chondrocytes to low oxygen tension: relationship between hypoxia and cellular metabolism," <i>J. of Cellular Physiology</i> , August 1996, 168(2), 424-432
17	Sherwood, J.K., et al., "A three-dimensional osteochondral composit scaffold for articular cartilage repair," <i>Biomaterials</i> , 2002, 23, 4739-4751
18	Van Noorden, C.J., et al., "Ectopic mineralized cartilage formation in human undifferentiated pancreatic adenocarcinoma explants grown in nude mice," <i>Calcified Tissue International</i> , February 1995, 52, 145-153 (Abstract from MEDLINE, 1 page)
19	Von der Mark, K., et al., "Cartilage cell differentiation: Review," <i>Clinical Orthopaedics and Related Research</i> , March-April 1979, 139, 185-205 (Abstract from MEDLINE, 1 page)
20	Wagget, A.D., et al., "Characterization of collagens and proteoglycans at the insertion of the human achilles tendon," <i>Matrix Biology</i> , 1998, 16, 457-470

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<b>U. S. PATENT DOCUMENTS</b>							
Examiner Initial		Document No.	Date	Name	Class	Subclass	
	21	4,642,120	02/10/87	Nevo, et al.	623	16	
	22	5,368,858	11/29/94	Hunziker	424	423	
	23	5,468,544	11/21/95	Marcolongo, et al.	428	224	
	24	5,632,745	5/1997	Schwartz	606	75	
	25	5,643,789	07/01/97	Ducheyne, et al.	435	402	
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	27	5,648,301	07/15/97	Ducheyne, et al.	501	39	
	28	5,658,332	08/19/97	Ducheyne, et al.	623	16	
	29	5,676,720	10/14/97	Ducheyne, et al.	65	17.5	
	30	5,721,049	02/24/98	Marcolongo, et al.	428	370	
	31	5,786,217	07/28/98	Tubo, et al.	435	402	
	32	5,811,302	09/22/98	Ducheyne, et al.	435	402	
	33	5,866,415	02/02/99	Villeneuve	435	325	
	34	5,902,741	05/11/99	Purchio, et al.	435	240.23	
	35	6,197,586 B1	03/06/01	Bhatnagar, et al.	435	395	
	36	6,328,990 B1	12/11/01	Ducheyne, et al.	424	426	
	37	6,489,165 B2	12/03/02	Bhatnagar, et al.	435	395	
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